## **REMARKS**

The Examiner's acknowledgement of the claim to priority is appreciated.

Formal drawings and a substitute specification will be provided when the Examiner acknowledges that there is allowable subject matter in this application.

Claims 1 to 23 have been rejected under 35 USC § 112, second paragraph, as allegedly being indefinite.

Applicant respectfully traverse this rejection.

It is respectfully submitted that the claims are directed to the ordinary artisan and that such an artisan having the benefit of the instant claims and disclosure would be fully apprised of the scope and content of the claims. The errors noted by the Examiner are not such as to cause the artisan to be confused. If the Examiner persists in this formal objection, applicant will make appropriate claim changes.

Reconsideration of this rejection is requested.

Claims 1 to 23 have been rejected under 35 USC §103(a) as allegedly being unpatentable over U.S. Pat. No. 6,523,026B1 to Gillis.

Applicant traverses this rejection since Gillis is not prior art against the present application. This application has a U.S. filing date of June 10, 999 and claims priority to an application filed in France on June 10, 1998. The Examiner has acknowledged applicant's claim to priority as well as the receipt of the certified priority document.

For the above reason, applicant urges withdrawal of this rejection.

Claims 1 to 23 have been rejected under 35 USC §101 as allegedly being drawn to a non-statutory subject matter.

Applicant respectfully disagrees with the Examiner.

The Supreme Court has identified three categories of subject matter that are unpatentable, namely "laws of nature, natural phenomena, and abstract ideas." <a href="Diehr">Diehr</a>, 450 U.S. at 185. Of particular relevance, the Supreme Court has held that mathematical algorithms are not patentable subject matter to the extent that they are merely abstract ideas. <a href="See Diehr">See Diehr</a>, 450 U.S. 175, <a href="passim;">passim;</a>; <a href="Parker v. Flook">Parker v. Flook</a>, 437 U.S. 584 (1978); <a href="Gottschalk v. Benson">Gottschalk v. Benson</a>, 409 U.S. 63 (1972). In <a href="Diehr">Diehr</a>, the Court explained that certain types of mathematical subject matter, standing alone, represent nothing more than abstract ideas until reduced to some type of practical application, i.e., "a useful, concrete and tangible result." Alappat, 33 F. 3d at 1544, 31 USPQ2d at 1557.

Unpatentable mathematical algorithms are identifiable by showing they are merely abstract ideas constituting disembodied concepts or truths that re not "useful". From a practical standpoint, this means that to be patentable an algorithm must be applied in a "useful" way. In <u>Alappat</u>, it was held that data, transformed by a machine through a series of mathematical calculations to produce a smooth waveform display on a rasterizer monitor, constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it produced "a useful, concrete and tangible result" - - the smooth waveform.

Similarly, in <u>Arythmia Research Technology Inc.</u> v. <u>Corazonix Corp.</u>, 958 F.2d 1053, 22 USPQ2d 1033 (Fed. Cir. 1992), it was held that the transformation of electrocardiograph signals from a patient's heartbeat by a machine through a series of mathematical calculations constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it corresponded to a useful, concrete or tangible thing - - the condition of a patient's heart.

A claim is analyzed to determine whether a mathematical algorithm is directly or indirectly recited. Next, if a mathematical algorithm is found, the claim as a whole is further analyzed to determine whether the algorithm is "applied in any manner to physical elements or process steps," and, if it is, it "passes muster under § 101."

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In the present application, the claims use a particular procedure to attain a specific result. Hence, the present claims recite statutory subject matter.

Reconsideration and withdrawal of this rejection is requested.

It is believed that all of the present claims are in condition for allowance. Early and favorable action by the Examiner is earnestly solicited.

## **AUTHORIZATION**

If the Examiner believes that issues may be resolved by telephone interview, the Examiner is respectfully urged to telephone the undersigned at (212) 801-2146. The undersigned may also be contacted by e-mail at ecr@gtlaw.com.

No additional fee is believed to be necessary. The Commissioner is hereby authorized to charge any additional fees which may be required for this amendment, or credit any overpayment to Deposit Account No. 50-1561.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 50-1561.

Dated: August 25, 2003

Respectfully submitted

Eugene C. Rzucidlo

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